Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. - 10. (canceled)

11. (new) A coated cutting tool with a hard coating layer formed on a substrate, wherein the substrate comprises a binder phase comprising one or more kinds of iron-group metals and a hard phase comprising one or more substances selected from carbides, nitrides, and oxides of elements of Groups IVa, Va and VIa of the Periodic Table and solid solutions thereof, and the coating layer comprises a smooth face having a surface roughness (Rmax) of 0.2 μm or less (the reference length being 5 μm) substantially at a blade-edge ridge and in a region which extends at least 200 μm from a rake face side boundary of the ridge toward a rake face side, and extends at least 50 μm from a flank side boundary of the ridge toward a flank side.

12. (new) The cutting tool of claim 11, wherein the flank of the substrate has an as-sintered surface.

13. (new) The cutting tool of claim 11, wherein the hard coating layer comprises one or more kinds of substances selected from carbides, nitrides, carbonitrides, borides, and oxides of one or more metals of Groups IVa, Va and VIa of the Periodic Table, Al and Si, and solid solutions thereof.

14. (new) The cutting tool of claim 13, wherein the hard coating layer comprises an inner layer comprising at least one or more layers of $TiC_wB_xN_yO_z$ wherein $w+x+y+z = 1$ and $w, x, y, z \geq 0$, a middle layer comprising an aluminum oxide layer, and an outer layer comprising $TiC_xN_yO_{1-x-y}$ or $ZrC_xN_yO_{1-x-y}$ ($0 \leq x, y$, and $x+y \leq 1$).

15. (new) The cutting tool of claim 11, wherein the smooth face comprises an aluminum oxide layer.

16. (new) The cutting tool of claim 11, wherein the smooth face has a surface roughness of 0.2 μm in a region which extends at least 500 μm from the rake face side boundary of the ridge toward the rake face side, and extends at least 200 μm from the flank side boundary of the ridge toward the flank side.

17. (new) The cutting tool of claim 14, wherein the inner layer comprises titanium carbonitride having a film thickness of 2 to 20 μm and a columnar crystal structure.

18. (new) The cutting tool of claim 11, wherein the hard coating layer comprises at least two layers, and a layer which contacts the substrate comprises titanium nitride having a film thickness of 0.2 to 3 μm and a granular structure.

19. (new) The cutting tool of claim 15, wherein the aluminum oxide layer comprises alpha

aluminum oxide having a film thickness of 0.5 to 15 μm.

20. (new) The cutting tool of claim 11, wherein the substrate comprises cermet.

21. (new) A coated cutting tool with a hard coating layer formed on a substrate, wherein the substrate comprises a binder phase comprising one or more kinds of iron-group metals and a hard phase comprising one or more substances selected from carbides, nitrides, and oxides of elements of Groups IVa, Va and VIa of the Periodic Table and solid solutions thereof, and the hard coating layer comprises one or more kinds of substances selected from carbides, nitrides, carbonitrides, borides, and oxides of one or more metals of Groups IVa, Va and VIa of the Periodic Table, Al and Si, and solid solutions thereof and has a smooth face having a surface roughness (Rmax) of 0.2 μm or less (the reference length being 5 μm) substantially at a blade-edge ridge and in a region which extends at least 500 μm from a rake face side boundary of the ridge toward a rake face side, and extends at least 200 μm from a flank side boundary of the ridge toward a flank side.

22. (new) The cutting tool of claim 21, wherein the flank of the substrate has an as-sintered surface.

23. (new) The cutting tool of claim 21, wherein the hard coating layer comprises an inner layer comprising at least one or more layers of $TiC_wB_xN_yO_z$ wherein $w+x+y+z = 1$ and $w, x, y, z \geq 0$, a middle layer comprising an aluminum oxide layer, and an outer layer comprising $TiC_xN_yO_{1-x-y}$ or

$ZrC_xN_yO_{1-x-y}$ ($0 \leq x, y$, and $x+y \leq 1$).

24. (new) The cutting tool of claim 23, wherein the smooth face comprises an aluminum oxide layer.

25. (new) The cutting tool of claim 24, wherein the inner layer comprises titanium carbonitride having a film thickness of 2 to 20 μm and a columnar crystal structure.

26. (new) The cutting tool of claim 21, wherein the hard coating layer comprises at least two layers, and a layer which contacts the substrate comprises titanium nitride having a film thickness of 0.2 to 3 μm and a granular structure.

27. (new) The cutting tool of claim 24, wherein the aluminum oxide layer comprises alpha aluminum oxide having a film thickness of 0.5 to 15 μm.

28. (new) The cutting tool of claim 21, wherein the substrate comprises cermet.

29. (new) A coated cutting tool with a hard coating layer formed on a substrate, wherein the substrate comprises a binder phase comprising one or more kinds of iron-group metals and a hard phase comprising one or more substances selected from carbides, nitrides, and oxides of elements of Groups IVa, Va and VIa of the Periodic Table and solid solutions thereof, and the hard coating

layer comprises one or more kinds of substances selected from carbides, nitrides, carbonitrides, borides, and oxides of one or more metals of Groups IVa, Va and VIa of the Periodic Table, Al and Si, and solid solutions thereof and has a smooth face comprising an aluminum oxide layer and having a surface roughness (Rmax) of 0.2 μm or less (the reference length being 5 μm) substantially at a blade-edge ridge and in a region which extends at least 200 μm from a rake face side boundary of the ridge toward a rake face side, and extends at least 50 μm from a flank side boundary of the ridge toward a flank side.

30. (new) The cutting tool of claim 29, wherein the aluminum oxide layer comprises alpha aluminum oxide having a film thickness of 0.5 to 15 μm.